IN THE CLAIMS

Please amend the claims as follows:

Claims 1-29 (Canceled).

Claim 30 (Previously Presented): A method of manufacturing a composite sheet comprising:

providing a first bundle of parallel threads moving unidirectionally in a first direction;

combining the moving bundle of parallel threads with a lap of thread(s), wherein the lap of thread(s) is oriented in a second direction that is transverse to the first direction, to provide a combination of threads;

combining the combination of threads with a second bundle of parallel threads moving in the first direction to provide a second combination of threads;

heating the second combination of threads, optionally applying pressure to the second combination of threads, and cooling the second combination of threads to provide a composite sheet; and

collecting the composite sheet,

wherein at least one of the first bundle of parallel threads, the second bundle of parallel threads, or the lap of threads comprises at least one thermoplastic organic material, and at least one reinforcing material, and at least one of the first bundle of parallel threads, the second bundle of parallel threads, or the lap of threads comprises at least two materials having different melting points,

wherein the combination of threads comprises at least 10 percent of the thermoplastic organic material, and

wherein the composite sheet comprises solely the first bundle of parallel threads, the lap of threads, and the second bundle of parallel threads.

Claim 31 (Previously Presented): The method according to claim 30, further comprising introducing into the combination of threads, introducing into the second combination of threads, placing on the surface of the combination of threads, or placing on the surface of the second combination of threads one or more additional materials to provide additional reinforcement, improve the mechanical properties, protect against electromagnetic radiation, improve molding capacity, improve surface properties, or reduce the weight of the composite sheet.

Claims 32-42 (Canceled).

Claim 43 (Previously Presented): The method as claimed in claim 30, wherein the first bundle of parallel threads and the lap of threads are woven.

Claim 44 (Previously Presented): The method of claim 30, comprising applying pressure to the combination of threads after heating.

Claim 45 (Canceled).

Claim 46 (Previously Presented): The method of Claim 30, wherein the lap of threads consists of continuous reinforcing threads.

Claim 47 (Previously Presented): The method of Claim 30, wherein the lap of threads consists of continuous threads of organic material.

Claims 48-51 (Canceled).

## BASIS FOR THE AMENDMENT

Claims 30-31, 43-44 and 46-47 are active in the present application. Claims 1-29, 32-42, 45 and 48-51 have been canceled. Independent Claim 30 has been amended to include the limitations of previous Claim 45. No new matter is added.

## REQUEST FOR RECONSIDERATION

Independent Claim 30 has been amended to require that the composite sheet contain solely the first bundle of parallel threads, the lap of threads and the second bundle of parallel threads. Applicant submits that the subject matter of amended independent Claim 30 is patentable over the prior art of record.

The composite sheet of the presently claimed invention is described in the paragraph bridging pages 13 and 14 of the specification. They "are particularly economical" and "may be used, for example, for the thermoforming and the molding of pieces made of composite products." The composite sheets prepared by the invention process have little shrinkage (page 14, lines 6-8). The claimed process is therefore able to provide composite sheets that retain desirable functions (e.g., mechanical characteristics) while at the same time making production of the sheet more simple and economical.

Claim 45 of the Amendment and Request for Reconsideration filed on July 9, 2004 was rejected as anticipated or obvious over Whisler (U.S. 5,965,262). Applicant traverses the rejection on the grounds that Whisler does not disclose a process for preparing a composite sheet where the composite sheet contains only a first bundle of parallel threads, a lap of threads oriented in a transverse direction to the parallel bundle of threads and a second bundle of parallel threads oriented in the same direction as the first bundle of parallel threads.

The Office cited to the following disclosure in Whisler as support for the rejection:

> It is further contemplated that reinforcing fibers (not shown) could be provided which are located in the machine direction, designated by arrow 300 in FIG. 4, which is generally parallel to a longitudinal axis of the form 30. It is also contemplated that polymer strands formed from a polymeric material such as one of the materials set out above from which the film material 142 is formed, could run in the machine direction 300 and could be used in place of or in addition to the film materials 142, 184, 186. It is additionally contemplated that commingled reinforcing and polymer fiber strands or reinforcing fibers coated with a polymeric material could be positioned in the

machine direction 300 and used in place of or in addition to the film materials 142, 184, and 186.

Applicant notes that the disclosure above inherently describes a process which provides a composite sheet having more than only the three components allowed in present amended independent Claim 30 (e.g., the sheet prepared with the prior art method must contain more than a first bundle of threads, a transversely oriented lap of threads and a second parallel bundle of threads). Because the method of amended independent Claim 30 makes a sheet that has "solely" the three elements mentioned above, the amended claim excludes the films disclosed in Whisler.

The Office asserts that "one viewing the reference to Whisler '262 would have understood that various layers would have been capable of being added in the finished assembly and that the composite material need not include the use of the thermoplastic films disclosed therein." Applicant submits that a process that includes adding additional reinforcement, such as the second parallel bundle of strands recited in amended Claim 30, to the structure of Whisler cannot anticipate or render the presently claimed process obvious because Whisler requires a thread or reinforcing material that is angularly positioned relative to the other strands (column 1, lines 41-44). The claimed process cannot include adding an angularly positioned thread to the composite sheet because such a thread is excluded from the sheet formed in the claimed process.

In the presently claimed process the first bundle of parallel threads is moved unidirectionally in a first direction. The second bundle of parallel threads is moved in the same direction. Because the first and second bundle of threads are moved in the same direction and each bundle comprises parallel threads, both the first and second bundle of threads move unidirectionally and are in a transverse orientation to the lap of threads.

Applicant submits that it is not possible for the process of Whisler to form a composite structure having a first and second bundle of threads oriented unidirectionally and

in parallel to one another and a lap of threads oriented transversely to the direction of the first and second bundle of threads because Whisler requires the presence of a thread that is angularly positioned with regards to the direction of at least one of the bundles of the prior art threads. Even if the process of Whisler allowed the addition of a second bundle of threads on top of or in place of the prior art film, Whisler would still form a composite sheet having angularly positioned threads excluded in the composite sheet of the claimed invention. Therefore, any composite structure obtained by the Whisler process would contain more than solely a first and second bundle of threads arranged unidirectionally and parallel to one another and a lap of threads oriented transversely to the first and second bundle of threads.

The presently claimed process therefore eliminates an element or step of the Whisler process. The omission of an element (e.g., in this case the angularly positioned thread of Whisler) with retention of the element's function is an indicia of unobviousness (M.P.E.P. § 2144.04(II)(b)).

The claimed process excludes at least the angular thread of Whisler. Applicant submits that it is known in the art that the process of laying or weaving an angularly oriented thread is more complicated and may require a more sophisticated technique in comparison to the claimed process which eliminates this step.

Because the composite sheet prepared by the steps of the claimed process contains solely those components recited in the claim, any film material, such as the film material of Whisler, is excluded. Even if one substitutes the film material of Whisler with a parallel orientation of threads moving unidirectionally, the resulting process would still provide a composite sheet containing more than the three elements permitted in the composite sheet provided by the claimed process and would necessarily include steps excluded in the claimed process.

Therefore, Applicant respectfully submits that the subject matter of previous dependent Claim 45, and now amended independent Claim 30, is patentable over the prior art relied upon by the Examiner.

Applicant respectfully requests the withdrawal of the rejection and the passage of all now-pending claims to Issue.

Respectfully submitted,

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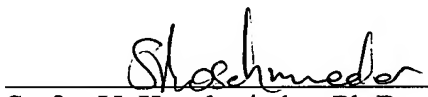

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